

RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 7/2010

INSTRUCTIONS:

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

| | | | |
|------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WisDOT research program category: <input type="checkbox"/> Policy research <input type="checkbox"/> Other | | <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Pooled fund TPF# | Report period year: 2011 <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input checked="" type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31) |
| Project title: Foundation Movements for Transportation Structures | | | |
| Project investigator: James Schneider | | Phone: 608-890-2662 | E-mail: james@cae.wisc.edu |
| Administrative contact: Peg Lafky | | Phone: 608-266-3633 | E-mail: |
| WisDOT contact: Robert Arndorfer | | Phone: 608-246-7940 | E-mail: |
| WisDOT project ID: 0092-09-05 | | Other project ID: | Project start date: 2/5/2009 |
| Original end date: 2/5/2012 | | Current end date: 2/5/2012 | Number of extensions: 0 |

Project schedule status:

☐ On schedule ☐ On revised schedule ☐ Ahead of schedule ☒ Behind schedule

Project budget status:

| Total Project Budget | Expenditures Current Quarter | Total Expenditures | % Funds Expended | % Work Completed |
|----------------------|------------------------------|--------------------|------------------|------------------|
| \$109,893.00 | \$2,541.98 | \$48,652.73 | 44% | 41% |

Project description:

The overall research objective of this study is to produce a document summarizing simplified design procedures for evaluation of foundation movements for transportation structures within the LRFD framework. Recommendations for the measurement and selection of input parameters for those design procedures will also be provided.

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

The main activities this quarter included continued monitoring of load measurements at each site and analysis of existing data. Two test columns were built in the laboratory and loaded.

Anticipated work next quarter:

Continued analysis and collection of data from existing sites will occur this quarter. New sites should be instrumented.

Circumstances affecting project or budget:

No new sites were available to instrument this quarter. That will likely result in a lower number of total sites analyzed in the final report than discussed in the proposal. Additionally, since we are still instrumenting sites, it is likely that the final report

will not be completed in February 2010. A completion plan and no cost time extension will be discussed with the POT at the end of the construction season this fall.

Insert Gantt chart and other project documentation – attach additional pages if necessary
[see attached sheet](#)

FOR WISDOT USE ONLY

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|----------------------|----------------|
| Staff receiving QPR: | Date received: |
| Staff approving QPR: | Date approved: |

| | Oct 2008 - Sept 2009 | | | | Oct 2009 - Sept 2010 | | | | Oct 2010 - Sept 2011 | | | | 2011/2012 | |
|-------------------------------------------------------------------------------|----------------------|----|----|----|----------------------|----|----|----|----------------------|----|----|----|-----------|----|
| Activity | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 |
| Task 1 - Literature Review / Database development & interpretation | | | | | | | | | | | | | | |
| Commence Project | | | X | | | | | | | | | | | |
| Develop database of load tests | | | ● | | | | | | | | | | | |
| Analyze existing methods | | | ● | | | | | | | | | | | |
| FE parametric studies | | | ● | | | | | | | | | | | |
| Develop list of potential field sites | | | | | | | | | | | | | | ● |
| Assess appropriate instrumentation | | | ● | | | | | | | | | | | |
| Task 2 - Field monitoring and interpretation | | | | | | | | | | | | | | |
| Field testing for shallow foundations | | | ● | | | | | | | | | | | ● |
| Field testing for deep foundations | | | ● | | | | | | | | | | | ● |
| Field testing for lateral piles analysis | | | ● | | | | | | | | | | | ● |
| Data compilation and analysis | | | | | | | | ● | | | | | | ● |
| Reporting | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 |
| Quarterly | | | X | X | X | X | X | X | X | X | X | X | X | X |
| POT Review | | | | | | | | | | | | | X | X |
| Literature Review | | | | | | | | | | | | | D | F |
| Final Report | | | | | | | | | | | | | D | F |

D = Draft Report; F = Final Report

Project not started until February 2009